



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,240	12/11/2003	Michael A. Fetcenko	HS-126	2800

24963 7590 04/24/2006

ENERGY CONVERSION DEVICES, INC.
2956 WATERVIEW DRIVE
ROCHESTER HILLS, MI 48309

EXAMINER

ALEXANDER, MICHAEL P

ART UNIT	PAPER NUMBER
----------	--------------

1742

DATE MAILED: 04/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/735,240

Applicant(s)

FETCENKO ET AL.

Examiner

Michael P. Alexander

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 10-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 13-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim(s) 1-22 is/are pending.

Election/Restrictions

Applicant's election of the species of Figure 15(d) in the reply filed on 17 February 2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 10-12 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 17 February 2006.

Information Disclosure Statement

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct

Art Unit: 1742

from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 4, 13-22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 6 of copending Application No. 10/733,702. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 6 of the copending application disclose a magnesium-based hydrogen storage alloy and a coating of catalytically active material on the surface of the magnesium storage alloy, which would inherently be insoluble and would be less than 200 angstroms thick. Although claim 6 of the copending application does not specify the recited process steps, the Examiner notes that the instant claims are directed to a product, not a process of producing a product, and the Examiner asserts the product of claim 6 of the copending application would be the same as or obvious from the product produced by the process steps of claims 13-15 and 17-22 of the instant application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Art Unit: 1742

Claims 1 and 6-9 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 29 of U.S. Patent No. 6,830,725. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 29 of the patent discloses a magnesium based hydrogen storage alloy having catalytic particles dispersed throughout the bulk alloy, which would inherently be insoluble. Although claim 29 of the patent does not specify the recited process steps, the Examiner notes that the instant claims are directed to a product, not a process of producing a product, and the Examiner asserts the product of claim 29 of the patent would be the same as or obvious from the product produced by the process steps of claims 7-9 of the instant application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 4-5, 13-15 and 17-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Welter et al. (US 4,613,362).

Regarding claim 1 and 4, Welter teaches (col. 4 lines 20-29) a magnesium granulate with iron homogeneously distributed over the surface of the granulate particles, which anticipates the all the features of the claimed invention.

Regarding claim 2, Welter teaches (col. 4 lines 20-29) that the granulates would be 4% iron, which leaves the granulate at 96% magnesium.

Regarding claim 5, Welter teaches (col. 4 lines 37-43) using steel instead of iron. Carbon would inherently be present in the steel.

Regarding claim 13, Welter teaches (col. 4 lines 20-29) that the iron would be homogeneously distributed over the surface of the granulate particles.

Regarding claims 14-15 and 17-22, the Examiner asserts the limitations of claims 14-15 and 21-22 are product-by-process limitations. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. The Examiner asserts that the product of claims 14-15 and 21-22 is the same as the product of Welter because the product of Welter comprises a continuous or semi-continuous layer of catalytic material on the surface of the magnesium hydrogen storage alloy which is in particulate form. See MPEP 2113.

Claims 1-3 and 6-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Das et al. (US 4,765,954).

Regarding claim 1, Das teaches (col. 2 line 60 – col. 3 line 35) a magnesium-based alloy having finely dispersed intermetallic phases therein, which anticipates the claimed invention.

Art Unit: 1742

Regarding claim 2, Das teaches (col. 4 lines 44-58) that the alloy would include at least 80 atomic percent magnesium.

Regarding claim 3, Das teaches (col. 4 lines 44-58) that the alloy would further include aluminum.

Regarding claim 6, Das teaches (col. 3 lines 23-35) that the alloy comprises discrete dispersed regions of intermetallic materials (i.e. catalytic material) in the bulk of the magnesium alloy.

Regarding claims 7-9, the Examiner asserts the limitations are product-by-process limitations. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. The Examiner asserts that the product of claims 7-9 is the same as the product of Das because the product of Das comprises discrete dispersed regions of catalytic material in the bulk of said magnesium alloy. See MPEP 2113.

Claims 1-2 and 6-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Sauerwald (US 2,228,781).

Regarding claim 1, Sauerwald teaches (col.1 lines 30-53) a magnesium alloy comprising a suspension of zirconium particles therein, which anticipates the claimed invention.

Regarding claim 2, Sauerwald teaches (col. 2 lines 19-30) embodiments in which the magnesium would inherently be at least 80 atomic percent.

Regarding claim 6, Sauerwald teaches (col. 1 lines 30-53) that the zirconium powder would be dispersed throughout the magnesium alloy, which anticipates the claimed invention.

Regarding claims 7-9, the Examiner asserts the limitations are product-by-process limitations. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. The Examiner asserts that the product of claims 7-9 is the same as the product of Sauerwald because the product of Sauerwald comprises discrete dispersed regions of catalytic material in the bulk of said magnesium alloy. See MPEP 2113.

Claims 1, 13 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Kato et al. (US 6,068,938).

Regarding claims 1, 13 and 16, Kato teaches (abstract, Figs. 2a and 2b) a magnesium based alloy plated with 0.2 microns of zinc (i.e. about 100 angstroms), which would be a continuous layer of catalytic material on the surface of the magnesium alloy in bulk form, which anticipates the claimed invention.

Claims 1 and 6-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Fetcenko et al. (US 6,830,725).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in

Art Unit: 1742

the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claims 1 and 6-9, see the rejection above in the section entitled "Double Patenting".


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Alexander whose telephone number is 571-272-8558. The examiner can normally be reached on M-F 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy V. King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MPA
mpa

ROY KING 
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700